

**REMARKS**

Claims 1 to 7 are pending. Claims 1 to 6 are amended.

**§ 112 Rejections**

Claims 3, 4, and 6 stand rejected under 35 USC § 112, second paragraph, for insufficient antecedent basis for the term "fluorothermoplastic". Claims 3, 4, and 6 have been amended to recite a "fluoropolymer" according to claims 1, 3, and 3, respectively. With the amendment, Applicants submit that the rejection of claims 3, 4, and 6 under 35 USC § 112, second paragraph, has been overcome, and hereby respectfully request the rejection be withdrawn.

Support for the amendments to claims 1 and 2 can be found, for instance, (i) at page 3, lines 10–15 (noting that the fluoropolymers, first in the form of a fluorinated agglomerate, are melt pelletized); page 4, lines 13–21 (describing the treatment of melt pellets); page 5, lines 25–30 (describing the treatment of melt pellets); page 7, lines 17–24 (describing the process which includes formation of melt pellets) (ii) page 3, lines 17–26 (describing the perfluorinated thermoplastics that may be used); (iii) page 3, lines 10–15 (describing the melt pelletization process, which inherently requires the polymer to be melt-processable); page 4, lines 13–21 (describing the treatment of melt pellets, the formation of which inherently requires the polymer to be melt-processable); page 7, lines 17–24 (describing the process which includes formation of melt pellets, which inherently requires the polymer to be melt processable).

Claims 3, 4, and 6 are amended to recite the same pre-amble as claim 1, from which these dependent claims depend. Claims 3 and 4 are also amended to put them into more appropriate idiomatic English (amending "containing" to "has"). No change in the scope of claims 3, 4, or 6 is affected by the amendments to those claims.

The applicants submit that no new matter is added by the amendments to the claims.

**§ 102/103 Rejections****Claims 1, 2, 5 and 7**

Claims 1, 2, 5 and 7 stand rejected under 35 USC § 102(b) as being anticipated by or, in the alternative, under 103(a) over U.S. Patent 5,546,182 (hereinafter '182) or U.S. Patent 4,001,736 (hereinafter '736).

The Applicants kindly submit that neither '182 nor '736 teaches, suggests or describes the features of independent claims 1 or 2.

The description in '182 relates to an analytical method employed for detecting trace amounts of metals in high molecular weight PTFE (Examples 1 to 8 and 11 of '182), ETFE (Example 9 of '182), and PFA (Example 10 of '182). The description in '182 relates, however, to the measurement of the level of extractable metal ions in a fluoropolymer powder. The PTFE samples are not melt-processable and cannot form melt-pellets. The ETFE and PFA samples are in the form of a polymer powder.

The distinction is significant, in that the present application describes that corrosion present in the preparation of melt-processable fluorothermoplastic melt-pellets is typically accompanied by significant corrosion of processing equipment, leading to high extractable metal ion content in the final melt-pellets. In contrast, the present claims relate to a low extractable metal ion content melt-pellet. Nothing in '182 teaches, suggests or describes the invention of independent claims 1 or 2, nor does '182 present a possible means of preparing such inventions.

The description in '736 relates to "fluoroelastomer compositions with minimal metal contaminations" as characterized by "metallic extractables." See column 6, lines 5 to 12. First, '736 relates to the preparation of fluoroelastomer compositions, not melt-processable perfluorinated fluorothermoplastics in the form of melt-pellets. As such, '736 does not teach, suggest or describe the limitations of the invention of independent claims 1 and 2.

Furthermore, the results for metal and fluoride contents reported in '736 are based on 100 ml test fluid in which one o-ring AS 568 A Size-214 was immersed. To obtain the contents based on the fluoroelastomer, one must multiply the given figures by F:

$$F = (\text{weight of 100 ml test fluid}) / (\text{weight of o-ring}) = \sim 110 / 1.75 = 60.$$

Applying this factor to the polymer results in an iron content of 0.75 ppm and total metallic content of 4.7 ppm (Table VIII from '736) and a fluoride content of 14 ppm. These values are far outside the limits of the invention claimed in independent claims 1 and 2.

Based on the foregoing, both '182 and '736 fail to teach, suggest or describe the invention described in independent claims 1 and 2. Dependent claims 5 and 7 each depend from claim 1 and add patentable features thereto. Accordingly, the Applicants kindly submit that the rejection of

claims 1, 2, 5 and 7 over '182 or '736 under 35 USC § 102(b) or 103(a) is overcome, and respectfully request that the rejection of claims 1, 2, 5 and 7 be withdrawn.

Claims 3, 4 and 6

Claims 3, 4 and 6 stand rejected under 35 USC § 103(a) as being obvious over '182 or '736 in view of EP 0,457,255 (hereinafter '255). The Applicants kindly submit that neither '182 nor '736 in view of '255 teaches, suggests or describes the features of independent claims 1 or 2.

The Patent Office asserts that '255 teaches a low level of unstable end groups for the same fluoropolymers taught in '182 and '736, and that such a teaching renders claims 3, 4, and 6 prima facie obvious.

The description in '255 provides for a quasi-melt pelletized products, "Treatment 1" at page 8, lines 35 to 40. The description in '255 does not teach, suggest or describe, however, the level of extractable metal ions described in independent claim 1 or the levels of extractable fluoride ions and heavy metals described in independent claim 2. Thus, '255 in combination with either '182 or '736, still fail to fairly teach, suggest or describe the elements of independent claims 1 or 2. Accordingly, dependent claims 3, 4, and 6, which each depend from independent claim 1, are patentable over '255 in combination with either '182 or '736.

Based on the foregoing, the Applicants kindly submit that the rejection of claims 3, 4 and 6 under 35 USC 103(a) over '182 or '736 in view of '255 has been overcome and kindly ask that the rejection be withdrawn.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested.

Allowance of claims 1-7, as amended, at an early date is solicited.

Respectfully submitted,

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